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PATENT SPECIFICATION

(11)

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(54) IMPROVEMENTS IN OR RELATING TO A METHOD OF MARKING TEXTILES

(71) We, COMBES EVANGELISTA, LUC EVANGELISTA and CHRISTIAN EVANGELISTA, all French citizens residing respectively at 17 Place Turenne, 57100 Thionville, France; 17 Place Turenne, 57100 Thionville, France and 34 Cours de Rome, 57100 Thionville, France, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention refers to a method of marking textiles and to textiles marked by application of the method.

On numerous textile articles it is necessary to apply a mark comprising either the trade name of an undertaking or a trademark, brand, service mark or personalization mark with the name of the user, or elements for identification of the article, which may be variable on each garment or article.

Some solutions known at present for solving this problem are either methods of marking by transfer of prefabricated text which therefore cannot be variable on each article, or the production of texts with the aid of polymerizing and indelible ink on strips of cloth which are intended to be stuck on by heat and which are accordingly removable.

A method is likewise known of affixing untearable marks on thermofusible plastics material but in which the mark must be either preprinted or in the case of variable elements produced by inscription by hand, which is therefore not practical and often not very aesthetic.

Furthermore it may sometimes prove necessary after a certain time to modify the mark previously applied. Generally this modification is performed either by removal of the old label or by affixing over the old label a new mark.

An object of the invention is to provide a method according to which one produces on labels of thermofusible plastics material mechanically stamped marks of any kind and original style, whilst enabling a different mark to be applied to each article. The marks produced in accordance with the present method are irremovable and resistant to washing and drycleaning. Further, one can in accordance with the invention proceed with the application of a new plastics label over the previous one without any appearance of the underlying mark. Furthermore the execution of this marking is simple and reliable and necessitates in practice not very much investment, which enables marks to be obtained at low cost price compatible with the demands of the market.

For this purpose there is provided according to the invention a method of marking textiles, comprising the steps of applying a sheet of paper against the active face of an ink support of preselected colour, stamping by mechanical means, or inscribing by hand, the mark on the back of the sheet of paper in order to furnish a face of the latter with an inked reversed mark which is then applied by pressing this face against the face of a textile article to be marked for transfer of the mark, the sheet of paper then being removed, and over the mark which has been transferred onto the textile article being placed a label of thermo-fusible plastics material, and finally heat pressing at a predetermined pressure this label onto the textile article in order to let the required mark appear visible on the plastics label.

The invention will now be further described by way of example, with reference to the accompanying drawings in which:

Figs. 1 to 4 illustrate different steps in the method according to the invention; and in particular:

90

Fig. 1 shows the step of applying the inked reversed mark to the sheet of paper;

Fig. 2 shows the step of applying the sheet of paper to the textile article;

5 Fig. 3 shows the step of transferring the mark onto the textile article;

Fig. 4 shows the step of applying the plastics label;

10 Figs. 5 to 7 show different steps in the application of a new mark over an old label and in particular;

Fig. 5 shows the step of presenting the new mark;

15 Fig. 6 shows the step of transferring the new mark onto a screen support;

Fig. 7 shows the step of applying the new plastics label.

Referring to Figs. 1 to 4, one takes a sheet of zinc paper 1 and an inking support 2 which may be a sheet of carbon-paper used for typewriting. The colour of this sheet is preselected as a function of the colour of the mark that it is desired to obtain. The sensitized face 3 of the sheet of zinc paper 1 is applied against the active face 4 of the inking support 4. This was composed of the sheet of zinc paper 1 and the inking support 2 is introduced into the typewriter so that the normal strike of the typewriter occurs on the back 5 of the sheet of zinc paper 1. Of course an inscription by hand can equally well be done on this back 5. After typing of the mark, the inking support 2 is removed and a label is obtained consisting of the sheet of zinc paper 1 upon which the mark appears on the back 5, and the sensitized face 3 carries the same mark but reversed and in ink at 6.

40 On a suitable apparatus the chosen place on a textile article 7 is arranged so that a face 8 upon which it is desired to apply the mark is opposite the sensitized face 3 of the zinc paper 1. By means of a press, pressing of the sheet of zinc paper 1 onto the textile article 7 is carried out at a given temperature, time of application and pressure, which may vary to a great extent.

Thus the temperature may lie between 180 and 210°C, the time of application between 2 and 12 seconds, and the pressure between 2 and 3.5 kg/cm². There is thereby transfer of the reversed inked mark 6 and the latter, 9, now lies on the face 10 of the textile article 7. The zinc paper 1 is removed and over the mark 9 is applied a label of thermofusible plastics material 11. A second pressing is carried out. The label 11 thereby becomes an integral part of the textile article 7. The operation is completed and on the label 11 appears visibly the mark 12 produced. Because the mark 12 is protected by the label 11 this mark is irremovable and resistant to washing and 65 drycleaning.

Referring to Figs. 5 to 7, it may be necessary to apply a new mark over an old mark made in accordance with the method described above. It is however necessary to modify slightly the said method because 70 the mark previously applied is going to diffuse afresh into the new label and appear with the same intensity at its surface. Furthermore, for the new mark affixed over an old label which does not diffuse 75 the old ink mark, the ink film is trapped between two labels of plastics material, hence of material which is practically impermeable. Because of the pressing, the ink film is going to be crushed, causing it to 80 diffuse sideways. The new mark will accordingly not be clear and will be surrounded by smudges. Again, because the ink cannot all be absorbed there is created at the actual location of the mark a zone 85 of non-adherence of the second label.

In this modified method one proceeds in the following manner: between the old and the new label is interposed a scrap of cloth or of very thin non-woven material, preferably a special filter-paper, to which the ink and plastics can adhere. So the old label 11 is entirely covered by a special filter paper 13. By means of the sheet of zinc paper 1' having on its sensitized face 3' 95 the new reversed and inked mark 6' one proceeds to the transfer of this new mark 9' which becomes applied to a face 14 of the filter paper 13 which because of the pressing becomes an integral part of the textile article 7' by means of the old label 100 11. After having removed the sheet of zinc paper 1' one applies to the face 14 of the filter paper 13, furnished with the new mark 9', the new label of plastics material 105 15, and then proceeds to a second pressing so that the new label 15 is integrated with the textile article 7' through the filter paper 13 and the old label 11. The operation is completed and the second inscription 16 is as neat as if it were a matter of a first inscription 12.

WHAT WE CLAIM IS:—

1. A method of marking textiles, comprising the steps of applying a sheet of 115 paper against the active face of an ink support of preselected colour, stamping, by mechanical means, or inscribing by hand, the mark on the back of the sheet of paper in order to furnish a face of the latter with an inked reversed mark which is then applied by pressing this face against the face of a textile article to be marked for transfer of the mark, the sheet of paper then being removed, and over the mark 125 which has been transferred onto the textile article being placed a label of thermofusible plastics material, and finally heat pressing at a predetermined pressure this label onto the textile article in order to let 130

the required mark appear visibly on the plastics label.

2. A method as claimed in claim 1, in which the paper is a sheet of zinc paper
5 with a sensitised face on which the inked reversed mark is furnished.

3. A method as claimed in claim 1 or 2, in which the stamping is effected by a typewriter.

10 4. A method as in claim 1, in which, in order to superimpose a new mark over an old mark produced by the method of claim 1, a piece of material to which ink and plastics can adhere is laid over the pre-
15 vious plastics label, over this piece of material is applied a sheet of zinc paper having on a sensitized face the new reversed and inked mark, and applying pressure in order to transfer to the piece of
20 material the new mark and to unite the piece of material with the textile article by means of the old label, the sheet of zinc

paper then being removed and over this piece of material applying a new thermofusible plastics label and carrying out a
25 second pressing in order to unite the new label with the textile article through the piece of material and the old label, and to let the second mark appear visibly on the new plastics label. 30

5. A method as claimed in claim 4 in which the piece of material is filter paper.

6. A method of marking textiles substantially as hereinbefore described with reference to the accompanying drawings. 35

7. A textile article furnished with a mark by application of the method as claimed in any preceding claim.

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FIG.1

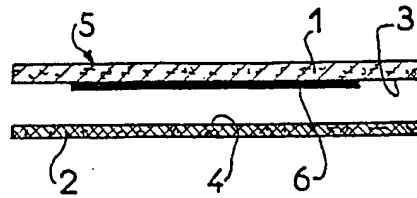


FIG.2

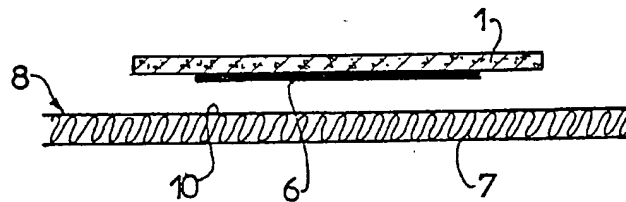


FIG. 3

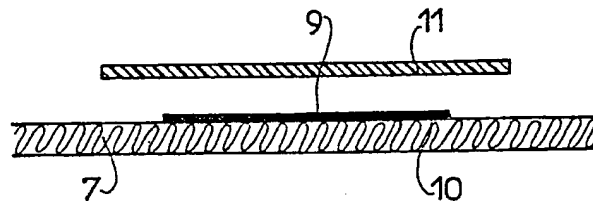


FIG. 4



FIG. 5

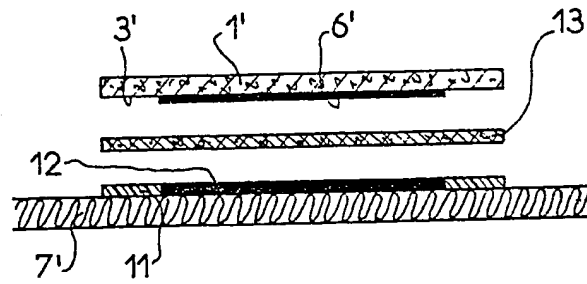


FIG. 6

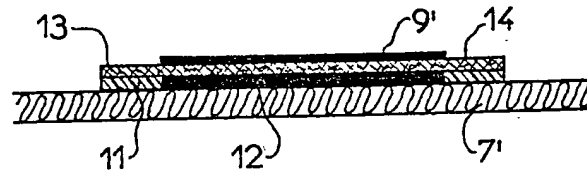


FIG. 7

